

CLAIMS:

1. A method of inhibiting or reducing the proliferation of prostate cancer cells, the method comprising administering to the cells a PLA₂ inhibitor.
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2. A method for the treatment of prostate cancer, the method comprising administering to a subject in need thereof a PLA₂ inhibitor.
3. A method according to claim 1 or claim 2 wherein the prostate cancer
10 cells are androgen independent prostate cancer (AIPC) cells.
4. A method according to any one of claims 1 to 3, wherein the PLA₂ inhibitor is a cPLA₂- α inhibitor.
- 15 5. A method according to any one of claims 1 to 3, wherein the PLA₂ inhibitor is an sPLA₂-IIA inhibitor.
6. A method according to claim 5, wherein the PLA₂ inhibitor is a conformationally constrained molecule derived from a peptide consisting
20 essentially of amino acid residues 70-74 of a human sPLA₂-IIA protein, or the equivalent residues in other sPLA₂ proteins.
7. A method according to claim 6 wherein the conformationally constrained molecule is a cyclic molecule.
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8. A method according to claim 6 wherein the conformationally constrained molecule is a cyclic peptide or derivative thereof.
9. A method according to claim 8, wherein the conformationally constrained
30 peptide is a cyclic peptide of the following formula:

A1-A2-A3-A4-A5

in which

A1 is F or Y or W or 2Nap

A2 is L or I

A3 is S or T

A4 is F or Y or W or 2Nap

A5 is R or K.

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10. A method according to claim 9, wherein the peptide is selected from the group consisting of cFLSYK, cFLSYR and c(2NapA)LS(2NapA)R.
11. A method according to any one of claims 1 to 10, wherein a cPLA₂- α inhibitor is administered in conjunction with an sPLA₂-IIA inhibitor.
12. A method for detecting prostate cancer or a metastases thereof in a subject, said method comprising:
 - determining the level of PLA₂ mRNA expressed in a test sample from said subject; and
 - comparing the level of PLA₂ mRNA determined at (i) to the level of PLA₂mRNA expressed in a comparable sample from a healthy or normal individual,
 - wherein a level of PLA₂ mRNA at (i) that is enhanced in the test sample relative to the comparable sample from the normal or healthy individual is indicative of the presence of a cancer cell in said subject.

13. A method for detecting prostate cancer or a metastases thereof in a subject, said method comprising:
 - determining the level of a PLA₂ polypeptide in a test sample from said subject; and
 - comparing the level of PLA₂ polypeptide determined at (i) to the level of said PLA₂ polypeptide in a comparable sample from a healthy or normal individual,

wherein a level of said PLA₂ polypeptide at (i) that is enhanced in the test sample relative to the comparable sample from the normal or healthy individual is indicative of the presence of a cancer cell in said subject.

- 5 14. A method of assessing the predisposition of a subject to prostate cancer, the method comprising the step of determining the presence of a polymorphism or an epigenetic change in a PLA₂ gene of the subject.
- 10 15. A method according to any one of claims 12 to 14 wherein the prostate cancer cells are androgen independent prostate cancer (AIPC) cells.
16. A method according to any one of claims 12 to 14, wherein the PLA₂ is cPLA₂-α.
- 15 17. A method according to any one of claims 12 to 14, wherein the PLA₂ is sPLA₂-IIA.